

CLAIMS: *Please amend the claims according to the status designations in the following list, which contains all claims that were ever in the application, with the text of all active claims.*

1. – 33. (CANCELED)

34. (NEW) A method for printing facial images of a person or a plurality of persons, from a sequence of images automatically captured by one or a plurality of means for capturing images, onto one or a plurality of coupons or any promotional printed material, comprising the following steps of:

- a) capturing a plurality of the input images of said person or said plurality of persons in an uncontrolled background,
- b) performing the communication between a means for processing and controlling and a product database, and processing read and write transaction to said product database,
- c) performing the communication between said means for processing and controlling and a customer database, and processing read and write transaction to said customer database,
- d) processing said plurality of input images in order to superimpose the facial images of said person or said plurality of persons onto one or a plurality of said coupons or the promotional printed material,
- e) processing demographic classification for said person or said plurality of persons using said plurality of input images, and matching the content of coupons or the promotional printed material according to a plurality of the demographic information from said demographic classification, and
- f) printing the coupons or the promotional printed material,

whereby the promotional printed material can comprise postcards, stamps, promotional brochures, and tickets for movies or shows,
whereby the method can be executed in any public place that requires the usage of said coupons, including existing checkout counters of a retail store environment, and
whereby the method can also be executed in a stand-alone system, including a coupon Kiosk system.

35. (NEW) The method according to claim 34, wherein the method further comprises a step of processing a store traffic control by allowing immediate pickup of said coupon or immediate redemption of said coupon,
wherein the store traffic control comprises a step of using said coupon to encourage said person or said plurality of persons to visit specific sites as a way of promoting goods or services sold at the visited sites.

36. (NEW) The method according to claim 34, wherein the method further comprises a step of processing customer interaction by providing one or a plurality of interfaces,
whereby the interfaces can comprise a keyboard, mouse, touch-screen, and contact-free interface.

37. (NEW) The method according to claim 34, wherein the method further comprises a step of utilizing the data gathering services for demographics based on the computer vision technologies to provide visibility to customer traffic, composition, and behavior.

38. (NEW) The method according to claim 34, wherein the method further comprises a step of executing the demographic classification and collecting the demographic data at various stages of coupon creation and redemption,

wherein the various stages can comprise a stage at the time of said person detection, a stage at the time of said coupon creation, and a stage at the time of said coupon redemption.

39. (NEW) The method according to claim 38, wherein the method further comprises a step of gathering the information about the customers from said plurality of demographic classification by analyzing and comparing the demographic information results from said various stages, whereby the gathered information can comprise the information not only for returning customers but also for those who do not redeem the coupons based on the analysis and comparison of the automatic demographic classification results at said various stages, and whereby the gathered information can also comprise the redemption rate among different demographic groups.

40. (NEW) The method according to claim 34, wherein the method further comprises a step of generating face-based identifications of said person or said plurality of persons at the time of coupon pickup to see whether the person who picks up the coupon is the right person for the coupon or not, whereby said person or said plurality of persons do not have to carry anything to claim the coupon.

41. (NEW) The method according to claim 34, wherein the method further comprises a step of verifying the legitimacy of the coupon redemption, whereby the verification prevents the problems in the paper-based conventional coupon redemption systems, including coupon fraud, duplicate redemption of the same coupon to the same customer, or inefficiency of issuing coupons to the second time customer.

42. (NEW) An apparatus for printing facial images of a person or a plurality of persons, from a sequence of images automatically captured by one or a plurality of means for capturing images, onto one or a plurality of coupons or any promotional printed material, comprising:

- a) means for capturing a plurality of the input images of said person or said plurality of persons in an uncontrolled background,
- b) means for performing the communication between a means for processing and controlling and a product database, and processing read and write transaction to said product database,
- c) means for performing the communication between said means for processing and controlling and a customer database, and processing read and write transaction to said customer database,
- d) means for processing said plurality of input images in order to superimpose the facial images of said person or said plurality of persons onto one or a plurality of said coupons or the promotional printed material,
- e) means for processing demographic classification for said person or said plurality of persons using said plurality of input images, and matching the content of coupons or the promotional printed material according to a plurality of the demographic information from said demographic classification, and

f) means for printing the coupons or the promotional printed material, whereby the promotional printed material can comprise postcards, stamps, promotional brochures, and tickets for movies or shows, whereby the apparatus can be integrated into any public place that requires the usage of said coupons, including existing checkout counters of a retail store environment, and whereby the apparatus can also be integrated into a stand-alone system, including a coupon Kiosk system.

43. (NEW) The apparatus according to claim 42, wherein the apparatus further comprises means for processing a store traffic control by allowing immediate pickup of said coupon or immediate redemption of said coupon, wherein the store traffic control comprises means for utilizing said coupon to encourage said person or said plurality of persons to visit specific sites as a way of promoting goods or services sold at the visited sites.

44. (NEW) The apparatus according to claim 42, wherein the apparatus further comprises means for processing customer interaction by one or a plurality of interfaces, whereby the interfaces can comprise a keyboard, mouse, touch-screen, and contact-free interface.

45. (NEW) The apparatus according to claim 42, wherein the apparatus further comprises means for utilizing the data gathering services for demographics based on the computer vision technologies to provide visibility to customer traffic, composition, and behavior.

46. (NEW) The apparatus according to claim 42, wherein the apparatus further comprises means for executing the demographic classification and collecting the demographic data at various stages of coupon creation and redemption, wherein the various stages can comprise a stage at the time of said person detection, a stage at the time of said coupon creation, and a stage at the time of said coupon redemption.

47. (NEW) The apparatus according to claim 46, wherein the apparatus further comprises means for gathering the information about the customers from said plurality of demographic classification by analyzing and comparing the demographic information results from said various stages, whereby the gathered information can comprise the information not only for returning customers, but also for those who do not redeem the coupons, based on the analysis and comparison of the automatic demographic classification results at said various stages, and whereby the gathered information can also comprise the redemption rate among different demographic groups.

48. (NEW) The apparatus according to claim 42, wherein the apparatus further comprises means for generating face-based identifications of said person or said plurality of persons at the time of coupon pickup to see whether the person who picks up the coupon is the right person for the coupon or not,

whereby said person or said plurality of persons do not have to carry anything to claim the coupon.

49. (NEW) The apparatus according to claim 42, wherein the apparatus further comprises means for verifying the legitimacy of the coupon redemption, whereby the verification prevents the problems in the paper-based conventional coupon redemption systems, including coupon fraud, duplicate redemption of the same coupon to the same customer, or inefficiency of issuing coupons to the second time customer.

50. (NEW) A method for printing facial images of a person or a plurality of persons, from a sequence of images automatically captured by one or a plurality of means for capturing images, onto one or a plurality of coupons or any promotional printed material, comprising the following steps of:

- a) capturing a plurality of the input images of said person or said plurality of persons in an uncontrolled background,
- b) processing said plurality of input images in order to detect facial images of said person or said plurality of persons,
- c) superimposing the facial images of said person or said plurality of persons onto one or a plurality of said coupons or the promotional printed material,
- d) processing demographic classification for said person or said plurality of persons using said plurality of input images,
- e) matching the content of coupons or the promotional printed material according to a plurality of the demographic information from said demographic classification, and

f) printing the coupons or the promotional printed material,
whereby the promotional printed material can comprise postcards, stamps, promotional brochures, and tickets for movies or shows.

51. (NEW) The method according to claim 50, wherein the method further comprises a step of using said coupon to encourage said person or said plurality of persons to visit specific sites as a way of promoting goods or services sold at the visited sites,
whereby the step can process a store traffic control by allowing immediate pickup of said coupon or immediate redemption of said coupon.

52. (NEW) The method according to claim 50, wherein the method further comprises a step of processing customer interaction by providing one or a plurality of interfaces,
whereby the interfaces can comprise a keyboard, mouse, touch-screen, and contact-free interface.

53. (NEW) The method according to claim 50, wherein the method further comprises a step of utilizing the data gathering services for demographics based on the computer vision technologies to provide visibility to customer traffic, composition, and behavior.

54. (NEW) The method according to claim 50, wherein the method further comprises a step of processing the coupon creation and redemption at various stages,
wherein the various stages can comprise a stage at the time of said person detection, a stage at the time of said coupon creation, and a stage at the time of said coupon redemption.

55. (NEW) The method according to claim 54, wherein the method further comprises a step of gathering the information about the customers from said plurality of demographic classification by analyzing and comparing the demographic information results from said various stages, whereby the gathered information can comprise the information not only for returning customers, but also for those who do not redeem the coupons, based on the analysis and comparison of the automatic demographic classification results at said various stages, and whereby the gathered information can also comprise the redemption rate among different demographic groups.

56. (NEW) The method according to claim 50, wherein the method further comprises a step of generating face-based identifications of said person or said plurality of persons at the time of coupon pickup to see whether the person who picks up the coupon is the right person for the coupon or not, whereby said person or said plurality of persons do not have to carry anything to claim the coupon.

57. (NEW) The method according to claim 50, wherein the method further comprises a step of verifying the legitimacy of the coupon redemption, whereby the verification prevents the problems in the paper-based conventional coupon redemption systems, including coupon fraud, duplicate redemption of the same coupon to the same customer, or inefficiency of issuing coupons to the second time customer.